

Abstract

An improved no-spill cup construction and valve assembly which provides an extremely secure seal against accidental liquid flow from the cup spout. The act of sucking at the cup spout creates negative pressure or a partial vacuum against a valve member near the spout having an opening therein, causing the valve member and opening to move off of a protruding member, thereby unblocking the opening in the valve. When the opening is unblocked, liquid can flow freely through the valve and spout. When not in use, the valve sits in a resting, closed position, with the opening in the valve sitting on a protruding member and pressed against the protruding member's base, sealing off the opening in the valve assembly. The closed position provides an extremely secure seal against fluid leakage, such that inadvertent spills or even deliberate attempts to force liquid outside of the cup, such as by turning the cup upside down, or shaking the cup, are ineffective. The cup assembly further allows variable liquid flow depending on the levels of suction applied, and allows flow to be regulated between regular or maximum flow and minimal flow levels or rates by rotating the position of the valve assembly in the cover of the cup.